PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	Schmid, et al.	Examiner:	Unassigned
Serial No.:	Unassigned 10609358	Group Art Unit:	Unassigned
Confirmation No:	Unassigned	Docket:	294-160
Filed:	Herewith	Dated:	July 23, 2003
For:	Selective Functionalization of Hydrocarbons with Isolated Oxygenases and Mediator Based Regeneration		

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

I hereby certify this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to:
Commissioner for Patents, P.O. Box 1450,
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on July 23, 2003
Signed: D. Bayer

INFORMATION DISCLOSURE STATEMENT

Sir:

In order to fulfill the requirements of candor and good faith set forth in 37 C.F.R. §1.56, Applicants submit herewith the following Information Disclosure Statement in accordance with the provisions of 37 C.F.R. §1.97 and §1.98.

UNITED STATES PATENTS

PATENTEE	PATENT NO.	ISSUE DATE
Higgins et al.	4,318,784	Mar. 9, 1982

FOREIGN PATENT DOCUMENTS

COUNTRY	PUBLICATION NO.	PUBLICATION DATE
PCT	WO 02/36794 A1	10 May 2002
PCT	WO 01/88172 A1	22 November 2001
PCT	WO 01/36654 A1	25 May 2001

NON-PATENT PUBLICATIONS

1. F. Hollmann, B. Witholt, A Schmid; "$[Cp^*Rh(bpy)(H_2O)]^{2+}$: a versatile tool for efficient and non-enzymatic regeneration of nicotinamide and flavin coenzymes;" *Journal of Molecular Catalysis B: Enzymatic*; 19-20, 167-176 (2003).

2. Gerhard Hilt, Tafeeda Jarbawi, William R. Heineman, and Eberhard Steckhan; "An Analytical Study of the Redox Behavior of 1,10-Phenanthroline-5,6-dione, Its Transition-Metal Complexes, and Its *N*-Monomethylated Derivative with Regard to Their Efficiency as Mediators NAD(P)+ Regeneration;" *Chem. Eur. J.*; 3(1):79-88 (1997).

3. J. Bryan Jones and Keith E. Taylor; "Nicotinamide coenzyme regeneration. The rates of some 1,4-dihydropyridine, pyridinium salt, and flavin mononucleotide hydrogen-transfer reactions.;" *Can. J. Chem.*; 54:2974-2980 (1976).

4. Dale G. Druekhammer, V.W. Riddle, and Chi-Huey Wong; "FMN Reductase Catalyzed Regeneration of NAD(P) for Use in Enzymatic Synthesis;" *American Chemical Society*; 50:5387-5389 (1985).

5. Gerhard Hilt, Burhanshah Lewall, Guillermo Montero, James H. P. Utley, and Eberhard Stechan; "Efficient In-Situ Redox Catalytic $NAD(P)^+$ Regeneration in Enzymatic Synthesis Using Transition-Metal Complexes of 1,10-Phenanthroline-5,6-dione and Its *N*-Monomethylated Derivative as Catalysts;" *Liebigs Ann./Recueil*; 2289-2296 (1997).

6. Eberhard Steckhan, Thomas Arns, William R. Heineman, Gerhard Hilt, Dirk Hoormann, Jakob Jorissen, Lars Kroner, Burhanshah Lewall and Hermann Putter; "Environmental protection and economization of resources by electroorganic and electroenzymatic syntheses;" *Chemosphere* 43:63-73 (2001).

7. E. Steckhan, M. Freda, S. Herrmann, R. Ruppert, E. Spika, E. Dietz; "Enzymatische Synthesen durch Indirekte Elektrochemische Prozesse;" *Dechema-Monographion Band 125 - VCH Verlagsgeselischaft*; 723-752 (1992) (Summary in English; Article in German).

8. J. Bryan Jones and Keith E. Taylor; "Nicotinamide coenzyme regeneration. Flavin mononucleotide (riboflavin phosphate) as an efficient, economical, and enzyme-compatible recycling agent;" *Canadian Journal of Chemistry*; 54(19):2969-2973 (1976).

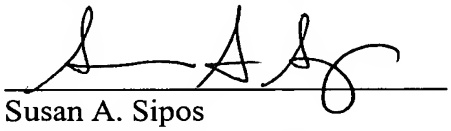
9. Sabine Flitsch, Gideon Grogan and D. Ashcroft; XP-002224911, "Chapter 16 *Oxidation Reactions*;" p 1065-1280 (2002).

Copies of the references set forth above are enclosed herewith. A separate listing of the references has been set forth on the attached Form PTO-1449. The Examiner is respectfully requested to consider these references in their entireties, and to indicate that he or she has done so by initialing the enclosed PTO-1449.

In view of the present submission, it is believed that the present application is in all respects complete, and in condition for examination and favorable consideration.

If the Examiner has any questions or comments relating to the present invention, he or she is respectfully invited to contact Applicants' attorney at the telephone number set forth below.

Respectfully submitted,



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FORM PTO-1449 (Rev. 2-32) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 294-160	SERIAL NO. Unassigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Schmid, et al.	CONFIRMATION NO. Unassigned
(Use several sheets if necessary)	FILING DATE Herewith	GROUP Unassigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
		4,318,784	03/09/82	Higgins et al.			

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							YES	NO
		WO 02/36794 A1	05/10/02	PCT				
		WO 01/88172 A1	11/22/01	PCT				
		WO 01/36654 A1	05/25/01	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

			F. Hollmann, B. Witholt, A Schmid; "$[Cp^*Rh(bpy)(H_2O)]^{2+}$: a versatile tool for efficient and non-enzymatic regeneration of nicotinamide and flavin coenzymes;" *Journal of Molecular Catalysis B: Enzymatic*; 19-20, 167-176 (2003).
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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 2-32) PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 294-160	SERIAL NO. Unassigned
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			Sabine Flitsch, Gideon Grogan and D. Ashcroft; XP-002224911, "Chapter 16 *Oxidation Reactions*;" p 1065-1280 (2002).

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